

Superfund Division QAPP Final Checklist - 2012

**USEPA
REGION 4 QUALITY ASSURANCE SECTION
QAPP SUPERFUND DIVISON FINAL CHECKLIST 2012**

QAPP Title: Converse Mill
 Project Location: Converse, Spartanburg County, South Carolina
 Originating Organization: SCDHEC Federal & State Site Assessment Section
 QAPP Date: February 6, 2012
 Receipt Date: February 21, 2012
 Review Date: February 21, 2012
 Reviewer : Corey Hendrix, Site Assessment Manager

Topic covered in accordance with requirements: ☒ Yes ☐ No

☐ Yes - Indicates that the topic/element was covered in sufficient detail to meet EPA's requirements as specified in this checklist.

☐ No - Indicates that the topic/element covered in the QAPP does not provide sufficient detail to meet EPA's requirements or the topic is entirely missing from the document.

Element	Meets Requirements <input type="checkbox"/> Yes <input type="checkbox"/> No
A-1. Title and Approval Page	
Title of QAPP	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Organization's Name: Both the name of the organization preparing the QAPP and the organization conducting the project or the grantee's name.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Dated Signature of Project Manager: Both the originating organization's PM and EPA's corresponding PM and/or PO.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Date and Signature of Quality Assurance Manager's approval for the originating entity and for EPA.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not Applicable. We are anticipating that the eventual program-level QAPP will need SCDHEC QAM signature, but not individual sampling plans.
Other Signatures as Needed:	<input type="checkbox"/> Yes <input type="checkbox"/> No Not Applicable. No other organizations involved.

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A-2. Table of Contents: Including Tables, Figures and Appendices	■ Yes □ No
A-3. Distribution List: Including Addresses of all entities or agencies requiring copies of the QAPP	■ Yes □ No Not applicable for addresses. No other organizations involved.
A-4. Project - Task Organization	
Identifies key project personnel, specifies technical disciplines, details their roles/responsibilities and details the chain of command	■ Yes □ No
Organization chart provided: Depicts lines of authority, independence (of QA manager), and reporting responsibilities. Org- chart also contains entries for all agencies, contractors and individuals responsible for performing QAPP preparation, sample collection, laboratory analysis, data verification, review and validation, data quality assessment; and project oversight responsibilities.	■ Yes □ No In SCDHEC Site Assessment draft Program Level QAPP
A-5. Problem Definition/Background.	
Clearly states the particular environmental problem to be solved, decision to be made, or outcome to be achieved. Include sufficient background information to provide a historical, scientific, and regulatory perspective for this particular project.	■ Yes □ No
Provides historical and background information concerning prior environmental investigations or assessments performed at the site. Discusses the data collected from these prior investigations and identifies any additional information that may be contained in computer databases (secondary data), etc.	■ Yes □ No

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A-6 Project/Task Description	
Provides a summary of all work to be performed, products to be produced, and the schedule for implementation. Lists the actual measurements to be made: Including in-situ field measurements, fixed laboratory measurements, or any other type of information collected as part of the project.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cites applicable regulatory standards or criteria such as action limits, ARARs, PRGs, MCLs, risk assessment screening levels, etc. Must provide the actual numerical criteria for the above items.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Identifies all instruments/equipment needed to conduct project and identifies all key study personnel (field technicians, chemists, risk assessors, engineers, project managers, quality assurance managers, etc.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides work schedule for all tasks including report preparation, response to comments, etc.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Identifies all required reports, records, data reports, quality assurance reports/documents	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
A-7. Data and Field Quality Objectives and Criteria for All On-Site and Off-Site Measurement Data	
Provides the Data Quality Objectives in accordance and compliance with EPA's Data Quality Objective Process (EPA-QA/G-4) document. Lists the seven steps of the DQO process and provides the project-specific information pertaining to each of these steps.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP and site background/ project description section.
Applies the DQO process to the project study undertaken. Provides the qualitative and quantitative data quality objectives for all aspects of the project. Must provide clearly	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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delineated project objectives such as determining the presence/absence of potential contaminants, nature and extent of contamination, determining whether human health is affected. Must provide a list of decisions and alternative actions (remediation, removal, further assessments, no further action, etc.).	
Provides all regulatory standards/criteria as part of DQO process (action limits, ARARs, PRGs, MCLs, etc.) on an analyte by analyte basis.	<p>■ Yes □ No</p> <p>General outline provided in Section A7- Step 5 of the SCDHEC Site Assessment draft Program Level QAPP. Appropriate level of detail provided for this project.</p>
Provides a list of all the critical contaminants/analytes along with their respective detection limit requirements (for chemical parameters) and QA/QC requirements.	<p>■ Yes □ No</p>
A-8. Special Training Requirements and Special Certifications	
Identifies how training needs are determined and lists all training requirements for the project. Specifies whether certain professionals require a license or certification to perform duties as required by federal or state laws.	<p>■ Yes □ No</p> <p>In SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies where training records will be maintained	<p>■ Yes □ No</p> <p>In SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies how any new training requirements are communicated to program/upper management	<p>■ Yes □ No</p> <p>In SCDHEC Site Assessment draft Program Level QAPP</p>
Discusses the importance of QA training and discusses how this training is provided.	<p>■ Yes □ No</p> <p>In SCDHEC Site Assessment draft Program Level QAPP</p>
A-9. Documentation and Records	

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Provides a comprehensive list of the documents and records required for this project (including raw data, field logs, audit reports, QA reports, progress or status reports, analytical data reports, data validation reports/data quality assessments reports.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In B10
Specifies the turnaround time for laboratory data deliverables (both hardcopy and electronic formats). Provides hardcopy data package content requirements and electronic data requirements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Provides the retention time and location of study records, reports and formal documents.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
B-1. Sampling Process Design	
Provides a table with type and number of samples required for collection such as surface, subsurface, or groundwater.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides design of the sampling/collection network	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides maps or diagrams with sample locations/collection locations and provides table with frequency of sampling events	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides the sample matrices slated for collection in the sample table (surface soil, subsurface soil, sediment, surface water, groundwater samples, etc).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides an extensive discussion regarding the rationale for the sampling design. (This also includes a discussion regarding the rationale and relevance of the analytical program).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides a table identifying the chemical parameters/analytes of interest for each collected sample along with the required detection limits, regulatory standards/criteria,	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP to the extent necessary for this

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QA/QC criteria, analytical method number, sample container requirements, sample preservation requirements, sample volume requirements and holding time criteria.	project.
B-2. Sampling Method Requirements	
Provides the required field sample collection procedures, protocols and methods	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Provides a list of sampling/collection equipment (including make and model of equipment).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Identifies on-site support facilities that are available to field staff.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable for Pre-CERCLIS screening. No ongoing government presence on site.
Identifies key study personnel in charge of or overseeing sampling/collection activities	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Describes equipment decontamination procedures and requirements. Discusses whether sampling equipment is dedicated or non-dedicated.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Provides table listing sample container requirements and preparation requirements for these containers (if provided by laboratory, clearly states such).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Provides table listing sample preservation requirements (for chemical parameters) and holding time criteria (where applicable).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
B-3. Sample Handling and Custody Requirements	
Provides a detail description of the procedures for post sample handling (once the sample has been collected).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program Level QAPP
Provides a detailed description of the chain-of-custody procedures.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No In SCDHEC Site Assessment draft Program

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B-4. Analytical Method Requirements	
Clearly identifies the extraction, digestion, analytical methodologies (provides the actual method numbers) to be followed (includes all relevant options or modifications required), identifies the required instrumentation. Provides laboratory SOPs or QAM.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Found on website referenced in SCDHEC Site Assessment draft Program Level QAPP.
Provides validation criteria for non-standard or unpublished methodologies proposed for use for a given study.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable. No non-standard methodologies proposed.
Identifies individual(s) responsible for overseeing the success of the analysis and for implementing corrective actions if deemed necessary.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Specifies the turnaround time for hardcopy and electronic laboratory data deliverables.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Found on website referenced in SCDHEC Site Assessment draft Program Level QAPP.
B-5. Quality Control Requirements	
Identifies the type, number and frequency of procedures and frequency of QA/QC sample collection along with the required QC statistically derived limits for each analyte (for spike samples, internal standards, surrogate spikes).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Provides the statistical equations for accuracy, precision, and comparability. Specifies the acceptance criteria for these measurements.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable. A judgmental sampling is proposed.
B-6. Instrument or Equipment Testing and Inspection Requirements	
Provides a list of all in-situ testing instruments and field equipment.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP

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Provides the technical criteria by which the field instruments or sampling equipment is checked for acceptable performance.	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Provides a comprehensive list of the supplies required for the project	<p>□ Yes □ No Not Applicable. Will be addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies the individual(s) responsible for checking and inspecting consumables and supplies	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Provides the acceptance criteria consumable item, instrument and equipment	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Describes equipment and corrective maintenance practices to ensure that on-site equipment or instruments are performing within the required specifications	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies the availability and location of spare parts	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
B-7. Instrument Calibration and Frequency	
Identifies all equipment requiring calibration and discusses the frequency of calibration	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies the calibration requirements for each instrument requiring calibration. (For fixed laboratory this may be in the SOPs or QA manual).	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Provides the calibration requirements and calibration acceptance criteria for each type of equipment or instrument. (Again for the off-site laboratory this information will reside in the method-specific SOPs and the QA manual).	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies the type of documentation required	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft</p>

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for calibrations and instrument checks and discusses how calibrations are traced back to specific instruments for each analytical parameter. (Once again for the off-site laboratory this information will reside in the method-specific SOPs and the QA manual).	Program Level QAPP
B-8 Inspection/Acceptance Criteria and Requirements for Supplies and Consumables	
Provides a comprehensive list of the consumables such as, solvents, reagents, buffer solutions and other consumables or supplies required for the project.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not Applicable. Will be addressed in SCDHEC Site Assessment draft Program Level QAPP
Provides the acceptance criteria for each of these items.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Identifies those individual(s) responsible for checking/inspecting supplies and consumables.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
B-9. Data Acquisition Requirements for Non-Direct Measurements	Not applicable for this QAPP. No non-direct measurements are needed.
Identifies the type and frequency of non-direct measurement techniques for the project (for computer databases, literature searches, etc.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Clearly identified and describes the limitations of such data	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Discusses the rationale for using this data and explains its relevance to the project	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable for this QAPP. No non-direct measurements are needed.
Specifies how limitations in this data will be communicated to all end data users and stakeholders.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable because no non-direct measurement are needed for this project.

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B-10. Data Management	
Describes the record-keeping, archival and retrieval requirements for hard-copy and electronic information produced during the course of the project.	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Provides audit checklists or other standardized forms in an appendix to the QAPP.	<p>□ Yes □ No Not applicable for this QAPP. This project is not planned to be audited. Otherwise, checklist will be provided in SCDHEC Site Assessment draft Program Level QAPP</p>
Describes data handling equipment and procedures used to process, compile and analyze data (provides a complete list of computer hardware and software needs) - Specifies whether computer databases will have restricted access or will be password protected Discusses how the accuracy of computer databases is assured.	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Describes process for assuring that applicable Office of Information Resource Management requirements are satisfied (mainly this is required if the data will be entered into an EPA or other Federal Database)	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
C-1. Assessments, Audits and Corrective Actions	
Lists the required number, frequency and type of assessments with approximate dates and names of individual(s) responsible for performing these assessments	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Discusses one or more of the following types of assessments: peer reviews, technical audits, surveillance, management system reviews, readiness reviews, quality system audits, performance evaluations, data quality assessments.	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft Program Level QAPP</p>
Identifies the individual(s) performing these assessments and discusses the authority and independence of these individual(s) in	<p>■ Yes □ No</p> <p>Addressed in SCDHEC Site Assessment draft</p>

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relation to those being assessed	Program Level QAPP
Provides a description of the types of corrective actions that may be instituted to resolve any issues raised during the audit	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP.
Discusses where audit findings will be documented and how the audit findings will be communicated to all key project staff, state and EPA personnel responsible for the study oversight	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
C-2. Reports to Management: Identifies the frequency and distribution of the following types of reports:	
Project Status Reports	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Results of Assessments or Audits	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Results of periodic Data Quality Assessments	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable for this QAPP. Will be addressed in SCDHEC Site Assessment draft Program Level QAPP
QA Audit Reports	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Identifies the individual(s) responsible for preparing, reviewing and receiving these reports - discusses the retention time for maintaining such reports	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable for this QAPP. Will be addressed in SCDHEC Site Assessment draft Program Level QAPP
D-1 & D-2. Data Review, Verification and Validation	
Identifies the guidance documents or SOPs governing the data review, verification and validation processes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Clearly discusses the criteria by which data will be accepted or rejected and provides a comprehensive list of the data flags or qualifiers that will be assigned to non-	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP

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compliant data points (including the definitions for each of these flags)	
Describes the process, and provides the criteria by which the data will be assessed for its overall usability and intended purpose.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Identifies the individual(s) responsible for validating the data and identifies the company or consultant for whom they work (Note: EPA recommends using an independent second or third party validator or at least a person that is unaffiliated with the laboratory performing the analyses on site samples).	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable to this QAPP. Analyses conducted in the Regional laboratory will not normally receive an independent validation by DHEC.
Identifies how problems associated with the laboratory will be documented and communicated to all end data users and stakeholders (where will the results of the data validation process be documented)	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable to this QAPP. Will be addressed in SCDHEC Site Assessment draft Program Level QAPP
D-3. Reconciliation of the Data to the Project-Specific DQOs	
Describes the process by which the on-site and off-site analytical data will be reconciled to the project-specific DQOs (especially if the data is non-compliant)	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable to this QAPP. Is addressed in SCDHEC Site Assessment draft Program Level QAPP and will be further elaborated on.
Discusses how limitations in the final data set will be documented and communicated to all end data users and stakeholders.	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable to this QAPP. Is addressed in SCDHEC Site Assessment draft Program Level QAPP and will be further elaborated on.
Describes the circumstances under which data would be rejected and removed from the final data set	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Addressed in SCDHEC Site Assessment draft Program Level QAPP
Identifies the individual(s) responsible for reconciling the data to the project-specific DQOs	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Project Managers
Identifies the SOP or guidance document outlining the DQO reconciliation process	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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Note: EPA's guidance and requirements documents for the DQO process, QAPP preparation, Data Validation and Data Quality Assessments, are located at www.epa.gov/quality. These documents include:

Final QAPP Disposition:

 X *Approved, no comments*

Signature of Designated Approval Official (DAO)

Corey Hendrix

Digitally signed by Corey Hendrix
DN: cn=Corey Hendrix, o=SSSES,
ou=Superfund,
email=hendrix.corey@epa.gov, c=US
Date: 2012.02.21 15:10:53 -05'00'

Signature of Section Chief of the DAO

Dawn Taylor

Digitally signed by Dawn Taylor
DN: cn=Dawn Taylor, o=SSSES/SSSES,
ou=EPA R4, email=taylor.dawn@epa.gov,
c=US
Date: 2012.02.22 10:43:23 -05'00'

 Not Approved, Address Comments, Submit Revised QAPP to the EPA Designated Approval Official

References

1. EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5, EPA/240/B-01/002 (March 2001).
2. EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4, EPA/240/B-06/001 (February 2006).

Both documents can be accessed at the following website: www.epa.gov/quality - Select guidance from the menu options to the left of the screen.